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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/579,803	05/26/2000	Takahiro Fukuhara	450101-02516	8527

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EXAMINER	
WU, JINGGE	
ART UNIT	**PAPER NUMBER**
2623	

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/579,803	FUKUHARA ET AL.	
	Examiner	Art Unit	
	Jingge Wu	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 November 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18,20 and 22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *1-18, 20 and 22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under Ex Parte Quayle, 1935 Comm'r Dec. 11 (1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on November 29, 2004 has been entered.

Applicant's amendment filed on October 5, 2004 has bee entered and made of record.

Applicants' amendment has required new grounds of rejection. New grounds rejection are therefore presented in the Office Action.

Applicant's arguments with respect to claims 1,8, 9, and 17 have been fully considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6587588 to Bottou et al. (a reference of record) in view of US 6473528 to Li et al. (a reference of record).

As to claim 1, Bottou discloses a wavelet inverse transform device comprising:

decoding object coefficient extracting means (fig. 6, 603 and 605) for extracting a plurality of coefficients (fig. 5, 54, more than one coefficients) necessary for decoding a specified area (fig. 5, 50) of a picture (col. 17 line 23-65); and

wavelet inverse transform means (fig. 9, 907, 913, and 919) for inverse wavelet transforming the plurality of coefficients (901) extracted from the decoding object coefficient extracting means (col. 18 lines 23-54),

wherein, the decoding object coefficient extracting means extracts transform coefficients (fig. 5, 54, note that the coefficients including the block area not covered by the image segment 50) outside of the specified area (fig. 50) that are necessary for decoding at least one of said transform coefficients inside said specified area (abstract, fig. 5-6, 50 and 52, col. 17 lines 30-65).

Bottou does not explicitly mention extracting partial coefficients that include the specified are of every hierarchically band split band components and outside the specified area.

Li, in an analogous environment, further discloses the transform coefficients of the specified area are extracted from every hierarchically band split band components and outside the specified area (col. 11c, col. 6 lines 23-36).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the scheme of Li in the device of Bottou in order to efficiently and completely decode the image to show the object that is partially extracted.

As to claim 2, Bottou further discloses a object area (fig. 5, 50)determining means for determining a decoding object area for extracting the coefficients (col. 17 lines 23-65).

As to claims 3 and 5, Bottou further discloses a plurality of splitting levels for the transform coefficients and include inside and outer rim side of hierarchical levels based on the specified area (fig. 5, 50, 52, and 54, col. 17 lines 23-65).

As to claim 8, Bottou discloses the steps of:

extracting (fig. 6), form a plurality of wavelet transform coefficients, first partial coefficients necessary for decoding a specified area (fig. 5, 50) of a picture (fig. 6, 603 and 605);

extracting (fig. 6), form a plurality of wavelet transform coefficients, second partial coefficients necessary for decoding a specified area (fig. 5, 50) of a picture (fig. 6, 603 and 605, note that extracting the second partial coefficients is inherent by the looping operation in fig. 6);

inverse transforming said extracted first and second partial coefficients by a wavelet inverse transform means (fig. 9, col. 18 lines 23-54).

Li, in an analogous environment, further discloses the transform coefficients of the specified area are extracted from every hierarchically band split band components and outside the specified area (col. 11c, col. 6 lines 23-36).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the scheme of Li in the device of Bottou in order to efficiently and completely decode the image to show the object that is partially extracted.

As to claim 4, Bottou does not explicitly mention the number of impose response filters.

Li, in an analogous environment, further discloses the transform coefficients on the outer rim side of the specified area are extracted corresponding to the number of the impulse response of filter used in the IWT (col. 6 line 10-col. 7 line 16, col. 8 lines 20-30).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the scheme of Li in the device of Bottou in order to efficiently code/decode the image.

As to claims 6-7, Li further discloses coefficients in a valid range (object area) based on overlap holding processing is performed from one level of the wavelet splitting to another (col. 6 line 23-col. 7 line 16).

Claims 9-10, 11-18, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bottou and Li, further in view of US 5933535 to Lee et al. (a reference of record).

As to claim 9, the combination of Bottou and Li discloses all limitations (see discussion with regard to claims 1 and 3) except entropy decoding.

Lee, in an analogous environment, discloses the entropy decoding used with IWT (col. 28 line 61-col. 29, line 3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the scheme of Lee in the device of Li in order to efficiently code/decode the image.

As to claim 10, Bottou, Li and Lee do not explicitly mention dequantizing means.

Examiner takes Official Notice that this feature is notoriously well known in the art.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the dequantization scheme in the device of Li in order to efficiently code/decode the image.

As to claims 11-16, the discussions are addressed with regard to claims 3-7.

As to claims 17-18, the claims are corresponding method claims to claims 8-9, 10 respectively. The discussions are addressed with regard to claims 8-9, 10.

As to claims 20 and 22, Bottou further discloses the object coefficients extracting means/steps includes extracting the transform coefficients outside said specified area (fig. 5, 52 and 52, note that some coefficients corresponding to the area 52 but not area 50 would be extracted according to fig. 6) that are necessary for decoding at least one of said transform coefficients inside said specified area (figs. 5-6, col. 17, lines 23-65).

Contact Information

Any inquiry concerning this communication or earlier communications should be directed to Jingge Wu whose telephone number is (703) 308-9588. He can normally be reached Monday through Thursday from 8:00 am to 5:30 pm. The examiner can be also reached on second alternate Fridays.

Any inquiry of a general nature or relating to the status of this application should be directed to TC customer service whose telephone number is (703) 306-0377.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Amelia Au, can be reached at (703) 308-6604.

The Working Group Fax number is (703) 872-9314.

Jingge Wu

Primary Patent Examiner